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ML scientist earns Lifetime Achievement Award

by Pete Meltzer, Jr., Materials and Manufacturing Directorate

WRIGHT-PATTERSON AFB, Ohio — A senior scientist at the Air Force Research Laboratory's Materials and Manufacturing Directorate received a "Lifetime Achievement Award" at the most recent gathering of the Thermec International Conference on Processing & Manufacturing of Advanced Materials.

Dr. Lee Semiatin, assigned to the directorate's Metals, Ceramics and Nondestructive Evaluation Division, was one of six individuals worldwide to receive the award, presented at conferences just every three years. He was cited for outstanding contributions in advancing the understanding of the thermomechanical processing of titanium and titanium aluminide alloys—materials highly valued by both the military and commercial industry.

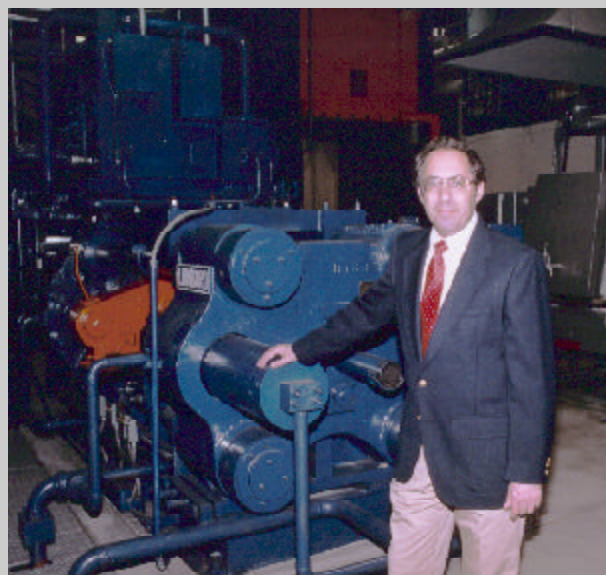
Semiatin's leadership and technical contributions have led to improvements in existing processes and the successful development of new processes for high temperature alloys. His selection for lifetime honors recognizes individual achievement and the scientific contributions of the Air Force Research Laboratory, and enhances the ML's reputation as a world leader in materials research and development.

Semiatin received his undergraduate degree in Engineering Mechanics at Johns Hopkins University and his master's and doctorate degrees in Metallurgy and Materials Science from Carnegie-Mellon University. He worked for the Battelle Memorial Institute from 1978 to 1991. Much of his research there, including basic studies on hot working of aerospace alloys, supported ML and the Air Force Office of Scientific Research (AFOSR).

In 1991, Semiatin joined ML's Metals, Ceramics and Nondestructive Evaluation Division as research leader of the Processing Science Group. For more than a decade, he has led the research effort in five highly important areas including advanced metallic and intermetallic alloys; metal and ceramic matrix composites; conventional titanium, nickel, and aluminum alloys; novel processes; and, the development of advanced models to describe material behavior under processing conditions.

The result has been successful development of new forging, extrusion, and rapid heat treatment processes, some of which are being used in aviation and aerospace parts production. In recognition, the Processing Science Group was named an AFOSR "Star Team" in 1992, 1995 and 2000.

Semiatin's research efforts over the past 25 years have expanded the knowledge of not only titanium and titanium aluminide alloys,



LIFETIME ACHIEVEMENT — Award winner, Dr. Lee Semiatin, shows off an instrumented extrusion press at the Air Force Research Laboratory's Materials and Manufacturing Directorate. (Air Force photo)

but other difficult-to-process materials such as nickel-based superalloys and refractory alloys. He received the National Aerospace Plane Titanium Aluminide Achievement Award in 1989 and is a recipient of ML's Charles J. Cleary Scientific Achievement Award (1993), an Air Force Scientific Achievement Award (1994), and the Air Force Basic Research Award (1995).

Semiatin has earned "Fellow" appointments from ASM International (1992) and the Air Force Research Laboratory (1993). He is a member of the Minerals, Metals, and Materials Society, and an honorary member of Alpha Sigma Mu.

As an adjunct professor in the Industrial, Welding and Systems Engineering Department at the Ohio State University and the Materials Program at the University of Dayton, Semiatin advises graduate students on their thesis and dissertation research, which oftentimes is in areas of value to both the Air Force and private industry. @